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## COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS.

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AND STATE AGRICULTURAL COLLEGES  
COOPERATING.

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WASHINGTON, D. C.

### CANNING CLUB AND HOME DEMONSTRATION WORK.

#### CANNING CLUBS.

The girls' demonstration work in the South began with the canning clubs in 1910, when four counties in two States were organized. Nearly 50,000 girls were enrolled in 1915 under the supervision of about 400 women agents in the 15 Southern States. The enrollment for 1914 was 33,173. In 1914 7,793 members put up 6,091,237 pounds of tomatoes and other vegetables from their tenth-acre gardens. These products were put into 1,918,024 cans, jars, and other containers, and they are estimated to be worth \$284,880.81, of which nearly \$200,000 is profit. The average estimated profit per member was \$23.30. Furthermore, these girls put up thousands of dollars worth of other products from the farms and orchards. Club members are learning how to make out reports and these statistics will be fuller as the work develops. The following county records are of special interest:

*County records of canning club work.*

State.	County.	Number of club members reporting.	Number of cans and jars.	Estimated value.
North Carolina.....	Alamance.....	90	55,165	\$7,039.65
Alabama.....	Etowah.....	136	46,533	5,970.17
North Carolina.....	Anson.....	60	38,540	5,016.20
South Carolina.....	Barnwell <sup>1</sup> .....	33	9,220	3,327.68
Georgia.....	Hart.....	44	14,846	2,290.16
Tennessee.....	Knox <sup>2</sup> .....	73	12,409	2,003.90
Kentucky.....	Daviess.....	29	10,343	1,141.25
Virginia.....	Alleghany.....	16	9,769	1,586.10

<sup>1</sup> The girls in Barnwell County, S. C., sold large quantities of fresh and canned pimentoes.

<sup>2</sup> In addition to the above figures, the club members of Knox County, Tenn., put up 2,950 cans and jars of other products of the farm and orchard.

The following excellent county records give totals in pounds of fresh tomatoes because so many tomatoes were sold fresh:

*Specimen records in pounds of tomatoes.*

State.	County.	Number of club members reporting.	Number of pounds fresh tomatoes.	Number of cans and jars.	Estimated value.
Tennessee.....	Hamilton.....	102	121,822	27,231	\$4,240.00
West Virginia.....	Kanawha.....	58	119,586	17,634	2,251.47
Arkansas.....	Pulaski.....	172	91,049	8,944	2,766.92
Mississippi.....	Harrison.....	80	33,562	4,867	1,787.95
South Carolina.....	Chester.....	58	105,204	9,754	1,539.00
Florida.....	Warren.....	43	12,194	4,732	811.79

The work of making choice preserves, jelly, marmalades, and pickles has been done by the more advanced girls, thus developing the special products best adapted to the different sections of the Southern States. Special work has been done with peaches, berries, grapes, figs, scuppernongs, mayhaws, ajeritas, oranges, kumquats, and many other fruits of the South. Nearly 3,000 girls now belong to poultry clubs and several hundred have been doing excellent work in bread demonstrations. Many of the better trained club members are succeeding with winter gardens. They are growing such vegetables as spinach, cauliflower, lettuce, endive, asparagus, and celery, some of which are new to the girls.

On November 16, 1914, an 11-year-old Virginia club member began a winter garden 20 feet wide and 50 feet long, which was a part of her tenth-acre garden which had been cultivated the previous summer. Spinach, lettuce, radishes, rape, kale, and mustard were planted in November and December, and in March and April, potatoes and peas. She gathered in all 357 pounds of vegetables and sold from her cold frame 700 collard plants, 800 cabbage plants, and 400 tomato plants. This crop was worth \$17.05 and gave a profit of \$14.25. She writes: "My mother has learned how to make a great many new dishes out of the vegetables in my winter garden."

As the girls' canning club work grows it becomes necessary to have more and more system in its development. A certain amount of gradation will make for efficiency in the conduct of these clubs. A natural and logical expansion of this work not only leads to additional crops and supplementary duties for the girls to carry out, but it also calls for some practical and useful demonstrations to be conducted by the mothers of the girls and by the women generally.

Thus far through 15 Southern States the girls' club work has begun with the one-tenth acre gardens in tomatoes. Tomatoes should still be the first crop. The study and use of the tomato should still be the course for the primary classes. Every girl who goes into the work should master this plant and learn how to utilize its products before being allowed to take up other vegetables and fruits. However, in sections where tomatoes suffer from blight and wilt it may be necessary to start with other crops and perhaps temporarily stop growing tomatoes in the club gardens.

The second-year girls engaged in canning club work should continue to grow tomatoes on one-half of their garden space and then take up one other crop on the other half. This additional crop should be prescribed by the State agent and, if possible, should be uniform throughout a given State, but not necessarily uniform throughout all the States. The following combinations are suggested by way of illustration:

Tomatoes and beans. Tomatoes and peas. Tomatoes and peppers.	Tomatoes and okra. Tomatoes and beets. Tomatoes and onions.
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The county agent who selects a definite program and strictly carries it out will probably be more successful than the one who allows the girls to take up several crops.

Winter gardens can be started in the late summer and fall on from one-fourth to one-half of the tenth-acre plats. Lettuce, spinach, and kale can easily be grown on the same land that is used in summer for other vegetables.

The third-year girls should grow three crops. Generally, two of the crops should be the same as those grown during the second year. The third should be decided upon by the State and county agent and the third-year girls, and should be uniform throughout a whole community. This will permit of an opportunity to develop special resources in different sections. Of course the agents and the advanced girls will study the vegetables of their county thoroughly before they select and make a specialty of one which is to occupy one-third of the garden space

being managed by the third-year girls. Success can not be expected in this work by urging a great many varieties at one time. The question of variety will take care of itself after the girls have specialized on three different crops. It is really a large undertaking to have the girls master three crops in three years and standardize the products.

Of course, it is realized that it will be necessary for the girls to take care of a great deal of surplus fruits from the orchards at the same period that they are canning their demonstration garden products, but the experience acquired in putting up the vegetables will make them more capable of properly canning the fruits. In some sections it will be advisable to substitute from five to ten fruit trees for one of the vegetable crops. The club member will be responsible for the pruning, spraying, and general care of these trees. Perhaps it will be well in some sections to substitute a fruit for tomatoes after the first or second year, so that when the club girl reaches her fourth year in the work the plat will be set to perennials, a part of which will be in good bearing. The following combinations are suggested for the third-year work:

Tomatoes, beans, and okra.  
Tomatoes, beans, and beets.  
Tomatoes, peas, and onions.  
Fig tomatoes, onions, and cucumbers.  
Tomatoes, beans, and eggplant.

Fig tomatoes, pepper, and okra.  
Tomatoes, pepper, and salsify.  
Tomatoes, pepper, and parsnips.  
Beans, peas, and carrots.  
Cucumbers, pepper, and horse-radish.

Many other satisfactory combinations are possible. Before arranging a combination for any season it is necessary to consider the skill of the club members who are to do the work, the demands of the local market, and what vegetables are needed for the special products selected. A few products require four well-chosen vegetables. For instance, soup mixture and Creole sauce, demand tomatoes, peppers, okra, and onions; B. S. Chutney and Dixie relish each require Spanish peppers, fig tomatoes, cabbage, and onions. A good macedoine for salads and other purposes can be made from peas, carrots, string beans and young turnips, celery, or onions. It is hoped that the State and county agents will decide upon the crops for the second and third year girls just as early in the season as possible, enter the names of the selected crops upon the agent's record at the colleges, and report the same to the Office of Extension Work in the South.

The club members should gradually plant their tenth-acre gardens to crops of perennial vegetables and fruits. This line of endeavor should certainly begin at the end of the third year, and in many cases at the end of the second year. The perennials can be substituted for some of the annual vegetables and each girl can be given credit for the condition of the part of her garden containing the perennial. It is desirable to have the perennial rotation begin to bear fruit by the fourth year. By the time a club member gets the perennial crop well established in her garden she will probably be going to high school or college. Her little garden and orchard will be carefully looked after in her absence, because it will be a constant reminder to the others of the family of her energy, devotion, and perseverance. Such a garden will be kept as a lasting and much valued memorial. The following crops are suggested for a permanent garden on a tenth-acre plat:

Strawberries, asparagus, and cherries.  
Raspberries, rhubarb, and plums.  
Gooseberries, currants, and peaches.  
Strawberries, asparagus, and quinces.  
Strawberries, rhubarb, and pears.

Dewberries, figs, and pecans.  
Currants, asparagus, and grapes.  
Blackberries, figs, and scuppernongs.  
Strawberries, figs, and oranges.  
Asparagus, strawberries, and kumquats.

If the agents can induce the girls to establish several thousand gardens like these in five years' time, they will have established a great system of instruction through first-class object lessons and excellent demonstrators. Of course, in following such a system there will be much

teaching and practice in making preserves, jellies, marmalades, pickles, and similar products. (See fig. 1.) Also, there will be some purposeful manual training, because the girls will design and make baskets and boxes for containers of these products for the markets and for holiday and birthday gifts. Some beautiful baskets of this kind have already been made of native material. Incidentally, there will be some good work in sewing because the club members are making cup towels, holders, aprons, caps, and uniform dresses for use in the kitchens and on public occasions. The girls receive training in cooking by preparing some of their products for the home table.



FIG. 1.—Members of girls' canning club making strawberry and orange pectin jelly.

### HOME DEMONSTRATION WORK.

The cooperative work carried on by the Office of Extension Work in the South and the State colleges of agriculture, has, from the beginning, emphasized the present plan of organization which provides for the efficient, devoted county woman agent employed for as long a term as possible and instructed and supervised by the State agent. The plan of personal leadership and supervision is the basis of successful work. The period of employment of the county agent has been so extended that many agents are now employed from 8 to 12 months in the year. The ideal plan now being striven for is to have a well-trained, efficient woman agent employed for the entire year in every county. Now that the worth of the work has been established and it has been sufficiently proved that it can not be successfully conducted without close supervision all the year, it is desirable for the future to get just as many counties

on this full-time-agent basis as possible, regardless of any extension of territory. In such counties, as soon as the girls' work shall have become well established and the agent's efficiency proved, demonstration work for women will be started. It is important that demonstration work for women be commenced as promptly as is consistent with thorough work, so that as funds become available from the Smith-Lever Act for the salaries of women agents, there shall be in existence a practical, well-established system of home demonstration work, with tabulated results from enough counties to show convincingly the soundness and worth of the plan.

It is assumed and understood that the mothers and the women generally will aid the girls in various phases of their work. The time has come in the process of the development of the demonstration organization when the women are eager to make some demonstrations themselves. Naturally they are much interested in the products put up by the girls and are studying with them the best means of utilizing such products. A county agent who has done one year's successful work can easily and readily go into the homes and aid in some cooking demonstrations which will give increased zest and interest to the work already done by the girls. The canned products in the home and the vegetables from the winter gardens should be utilized extensively in these demonstrations.

It is very desirable, however, that the women undertake some demonstrations of their own. It is worth while to select for their demonstrations some activities which are closely connected with the homes and which are difficult enough to require much skill and intelligence. The agents should always keep in mind that in any line of demonstration work they are simply trying to permanently raise standards and averages. To this end they must endeavor to find and extend the good practices already in use by the more successful people in the counties where they work. Agents should never assume an air of superiority but rather one of helpfulness, for they are teachers and are coaching demonstrators to do useful things for themselves and to help others.

The women demonstrators can well begin with chicken raising. It has been found that work with poultry is much better suited to women than to children. Poultry products are used very extensively in farm homes and there should be a large surplus for sale from every farm. Each agent should instruct her demonstrators in shipping by parcel post and express, using the most modern and inexpensive containers for such purposes. In the average community it will not be difficult to get 10 or 12 women to grade all the eggs they have to sell and then sell cooperatively. Egg-selling associations can be very quickly organized and put on a solid basis. Chickens make a good subject for demonstrations because of the probable profits and because the results can easily be put into statistical form for use in stressing and extending such demonstrations. It is always worth something for a demonstrator to be able to show a profit on the demonstration. The county agent will have an excellent opportunity to get a limited number of demonstrators to secure the same breed of chickens and by that means begin a gradual improvement of the stock of the whole community. It has been suggested that all products offered for sale by the women demonstrators bear the "5-H Brand" instead of the "4-H Brand" label, the additional "H" meaning home.

The following is quoted from a report of a Mississippi agent, and is typical of poultry work as being conducted by agents in several States:

When the blight struck our tomatoes and discouraged the girls it occurred to me that poultry, and particularly the cooperative egg-selling associations, would be profitable. So I obtained a list of 14 Farmers' Bulletins on poultry and wrote to the Department of Agriculture to send me 40 copies each. In about three weeks I received a mail sack, about 4 feet in length, filled with bulletins. These I distributed and began to talk poultry and cooperative egg selling. As a result, there are now 50 cooperative egg-selling associations and 2 junior poultry clubs.

One of these associations, with packing center at Centerville, has a membership of 17. At first the packing was done at the home of a member and the officers did the packing. Now a secretary-manager is paid 1½ cents per dozen to do the packing, which is done in a room of the old school building in town. This club has sold more than \$500 worth of eggs at prices ranging from 20 to 25 per cent above market prices.

Another association, with packing center at Woodville, has a membership of 20. The secretary-manager is paid 2 cents per dozen. To assist with the grading and packing the members are divided into committees of three, serving by turns. When first organized the packing was done at the dormitory of the A. H. S., but after the opening of school the room was needed, so the agent at the Yazoo & Mississippi Valley Railroad depot offered to share space with us, the depot being a large and roomy one. This association has an electric tester, scales for weighing the eggs, not accepting less weight than 2 ounces each, or 24 ounces per dozen.

At first shipments were made in the commercial cases with fillers. Now they are made in one-dozen cartons packed in commercial cases. Shipments are made by express, those made by parcel post not proving very satisfactory. This association ships both the fertile and infertile eggs, receiving a premium for infertile eggs. They have sold 3,815 dozens, at an average price of 24 cents a dozen.

Association No. 3, with packing center in the country 1 mile from Rosetta, has a membership of nine. The grading and packing is done at the home of the secretary-manager, assisted by committees. She is paid 1½ cents per dozen. Most of the eggs go to New Orleans.

The other groups have had somewhat similar experiences.



FIG. 2.—A meeting of women agents at which the various home-constructed conveniences and labor-saving devices are being explained. (The model of an iceless refrigerator in the left-hand foreground of the picture was designed by Professor Fullam of Alabama.)

In cooking and serving the products grown by the girls and women, there is a need for simple demonstrations in improved kitchen equipment and utensils. The fireless cooker has been one of the first devices to be used in this connection. Every agent should know how to make an effective fireless cooker at small cost. She should know, also, where to secure an inexpensive and successful stove which will not cost much, but which will enable the housewife to heat the food and the soapstones or disks, to be put into the fireless cooker, without the necessity of building a hot wood or coal fire, especially in the summer time. Some of our agents have already made these cookers and have given demonstrations in cooking creole chicken, thus utilizing some of the canned vegetables put up by the girls, and at the same time explaining the proper cooking of meats.

Just as soon as the demonstrations have been made in cooking meats and vegetables there will be a demand for some similar work with bread. A great field of work will open up when the subject of teaching bread making is reached. A progressive agent will be an expert along

that line and she will be able to give advice in regard to inexpensive bread mixers, kitchen cabinets, and such things as will save labor and increase efficiency.

In many instances the first approach to problems of sanitation from a demonstration standpoint has been made in the preparation for the canning parties or demonstrations held at the homes of club members. The need for absolute cleanliness and sterilization in canning is vividly impressed, because measured by speedy success or failure. Following such demonstrations it is far easier to spread the use of sanitary measures with reference to milk, water, and protection of other foods and the results are more tangible and impressive than when the subject of sanitation is attacked directly without such preliminaries. There must always be a definite activity to begin with, and the wisdom of its choice is measured partly by immediate results and further by the extent to which it stimulates other activity and arouses thought and initiative on the part of demonstrators in their homes. County agents in the South have found a splendid means of attacking the menacing fly by the use of home-constructed flytraps, in which thousands of this pest are destroyed early in the season. This simple device attracts considerable attention and because of its success stimulates further preventive measures in the destruction of the larvæ of flies in their breeding places. Subsequently it is not difficult to have the doors and windows screened, to have continued the use of ingenious flytraps to catch the few flies that get into the house in spite of the screens, and also to have the greatest care exercised in the disposition of garbage and filth.

Logically the next step will be with the care of milk and butter, another important demonstration subject. This is a line of work where great improvement is needed, and the number of housekeepers whose methods may be held up as standards is relatively smaller than in any other phase of demonstration work. There are great opportunities for financial success in dairy work, depending, however, upon the use of good methods. At this point considerable instruction in regard to cleanliness and sanitation will be found necessary. Improved churning, butter molds, cleaning devices, such as dishwashers, vacuum cleaners, and other conveniences, will be introduced.

While the above program is being carried out, a progressive agent will find frequent opportunity to gain the confidence of her demonstrators by suggesting many useful devices and utensils, which are inexpensive and can frequently be made by the men and boys in the homes. (See fig. 2.) An ironing board, fastened to the wall at the top of the wainscoting with a hinge and with a folding leg to support it when in use, and a button to fasten it up to the side of the wall when not in use, can be easily made and a good sleeve board can be added. Some will learn about kerosene, gasoline, or carbon flatirons, dishwashers, cherry seeders, patent parers for apples, peaches, and other fruit, clothes washers and wringers, and will get them for their kitchens. Iceless refrigerators (see fig. 3), wheel trays, built-in kitchen cabi-



FIG. 3.—A model of an iceless refrigerator of simple construction, such as could be used to advantage in many country homes.

cabins, and built-in kitchen cabinets.

nets, and many other conveniences, which are very much needed and which have been thus far neglected are being made by demonstrators. When the agents in general promote these things, many manufacturers will start to work along the same lines. Bright and ingenious minds will devise other conveniences and utensils. It will be worth much to have thousands of minds focused on the question of improved and labor-saving devices for use in the home.

It is very important to have each demonstrator make a start and carry out some useful and profitable line of work. Success with one demonstration creates a desire to undertake others. Under the direction of the county women agents in a few counties inexpensive home water systems have recently been installed in from 10 to 15 country homes. Reports have also been made of the building of a few septic tanks. It will not be long before many other

agents will be able to get demonstrators to install water systems. No line of this home demonstration work is more important than to get running water into the country homes. It is worth while, therefore, for each agent to inform herself in regard to inexpensive and effective plans of establishing water systems under different conditions. (See fig. 4.)

In a short time the county agent will be called upon to make suggestions in regard to the selection, construction, and arrangement of furniture. In a short time, too, she will be called upon by farmers and their wives for help in planning their houses and surroundings. Agents must also know where to get additional information on these various subjects. To do their best home demonstration, agents must possess much valuable knowledge about home buildings, home conveniences, and home beautification.

When a demonstrator succeeds with two or three of the things herein outlined, she will naturally find other useful things to do. The tendency of the whole program is to bring about the improvement and beautification of the home and its surroundings. Although we may have in mind the desirability of making the homes attractive and making the people anxious to remain at the old

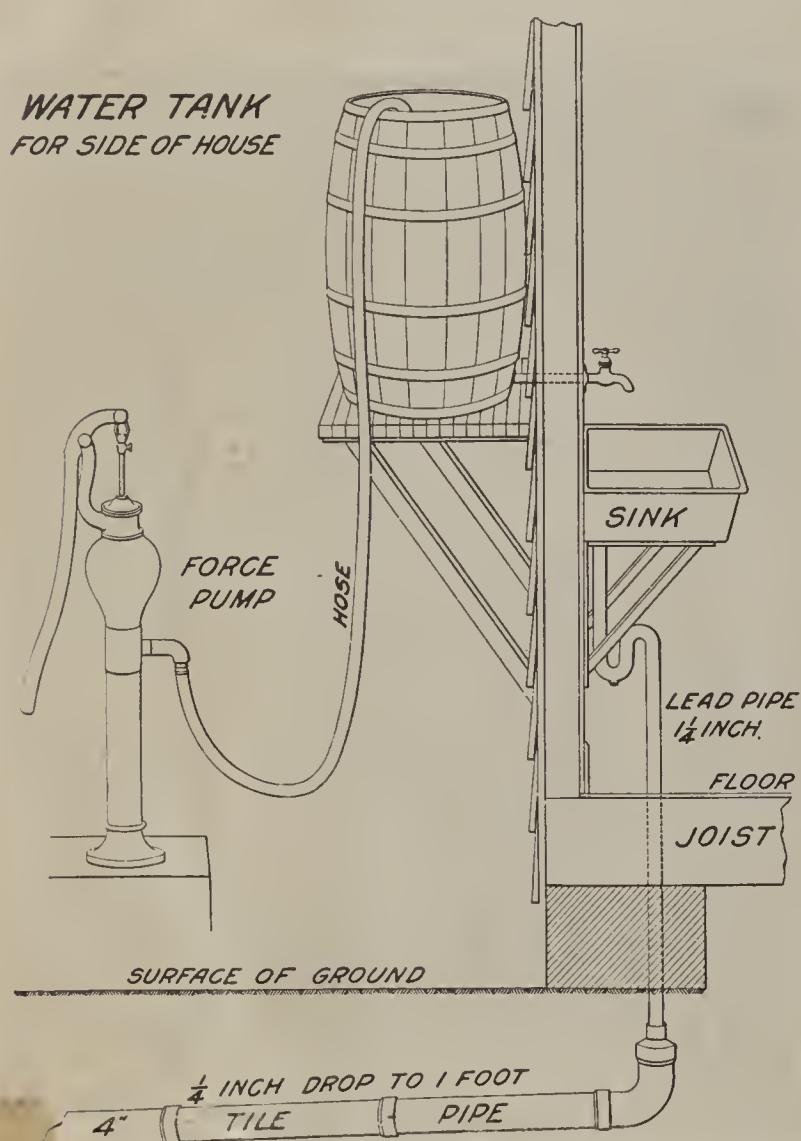


FIG. 4.—Diagram of a home water system of simple construction and great convenience.

homesteads and improve them, we can accomplish this only by taking one step at a time. One success leads to another. We can achieve the ultimate object easier step by step than we can by trying to do all of these things at once.

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